

APPENDIX

**IN THE SPECIFICATION:**

The abstract has been amended as follows:

[A method for enhancing internet searches by providing a meaning-based information organization and retrieval system.]

The present invention relies on the idea of a meaning-based search, allowing users to locate information that is close in meaning to the concepts they are searching. A semantic space is created by a lexicon of concepts and relations between concepts. A query is mapped to a first meaning differentiator, representing the location of the query in the semantic space. Similarly, each data element in the target data set being searched is mapped to a second meaning differentiator, representing the location of the data element in the semantic space. Searching is accomplished by determining a semantic distance between the first and second meaning differentiator, wherein this distance represents their closeness in meaning. Search results on the input query are presented where the target data elements that are closest in meaning, based on their determined semantic distance, are ranked higher.

**IN THE CLAIMS:**

Claims 2, 3, 5, 6, 8-11, 16, 17, and 19-21 have been cancelled.

Claims 1, 4, 7, 14, 18 and 22-23 have been amended as follows:

1. (Amended) A method comprising:

organizing concepts according to their meaning into a lexicon, said lexicon defining elements of a semantic space;

[providing a meaning differentiator in response to an input query, said meaning differentiator presenting a set of concepts from said lexicon that are related to said query.]

specifying relationships between concepts; and

determining a semantic distance from a first concept to a second concept, said semantic distance representing closeness in meaning between said first concept and said second concept, wherein said semantic distance is calculated by evaluating steps along a semantic path between said first concept and said second concept and applying a dynamic scaling factor to a perceived distance of each step along the semantic path according to types of relationships followed, directionality of the relationships and changes in direction along the semantic path, and number of competing relationships followed at each step.

4. (Amended) A method according to claim [4] 18 wherein said search is conducted by ranking elements of said target data set according to conceptual relevance.

7. (Amended) A method according to claim [2] 1 further comprising[:]  
determining [which meanings are closely related by] new relationships between concepts in said lexicon by determining said semantic distance between concepts, defining a radius of semantic distance about a given [meaning and] concept and inferring a relationship between said concepts, excluding meanings falling in distances beyond said radius.

14. (Amended) A method according to claim [2] 18 wherein said [meanings] concepts may be marked as at least one of a geographical location, offensive, unique instance, and timely, and [a proper noun] where such markings can be used to filter elements from the target data set so that target data elements with said markings can be prevented from being presented as search results.

18. (Amended) A method of searching a data set comprising:

organizing concepts according to their meaning into a lexicon, said lexicon defining elements of a semantic space;



providing a first meaning differentiator in response to an input query, wherein said first meaning differentiator [presenting] is a set of concepts from said lexicon that [are related to said query] represent a first location of said query in the semantic space [of said query];

providing a second meaning differentiator for each element of a target data set, wherein said second meaning differentiator is a set of concepts from said lexicon that represent a second location of said target data element in the semantic space;

determining a semantic distance from [a first concept and a second concept] the first meaning differentiator to the second meaning differentiator, [said semantic distance representing] which represents the closeness in meaning between said first [concept] meaning differentiator and said second [concept] meaning differentiator; and

[determining the relationship between said first concept and said second concept; and]

presenting results of a search conducted on [a] the target data set [in accordance with said set of concepts.] for target data elements close in meaning to an input query, wherein the closeness in meaning is determined by the semantic distance between the first meaning differentiator for said input query and the second meaning differentiator for each target data element.

22. (Amended) A method according to claim [21] 18 further comprising:

enabling a user to select at least one meaning from [said] the set of possible meanings;  
and

refining the results of said search by excluding said pertaining data that relates to undesired concepts, said undesired concepts excluded by inputting said selected meanings and searching said search results for the pertaining data that is semantically close to said selected meaning] for the input query to provide the correct interpretation of the input query for use as

input to the search.

23. (Amended) A method according to claim [20] 18 wherein said [information sources include] target data set includes documents.

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